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MYCOLOGIA

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ILLUSTRATIONS OF FUNGI—XIII

WILLIAM A. MURRILL

The accompanying plate illustrates several species of boletes collected either near Bronx Park, New York City, or in the vicinity of Stockbridge, Massachusetts. These are fleshy fungi with tubes instead of gills, usually occurring on the ground in woods during late summer and autumn. They are difficult to distinguish, even in the fresh state, and when the large amount of water they contain is eliminated the dried specimens bear little resemblance to the originals.

Many of the best edible fungi in temperate regions belong to this group, and the dangers of being poisoned are relatively small. Species with bitter or otherwise objectionable taste should be avoided, and especially all plants having red or reddish tube-mouths. The sensitive bolete, which promptly turns blue when touched or broken, has also caused mild poisoning in some cases. Many species have not been thoroughly tested, however; hence it is wise to eat sparingly of all such plants until well known.

For a complete treatment of the Boletaceae known to occur in this country, the student is referred to NORTH AMERICAN FLORA, volume 9, part 3, where the species are fully described and arranged under eleven genera with specific keys.

Gyroporus castaneus (Bull.) Quél.

CHESTNUT-COLORED GYROPORUS

Plate 80. Figure 1. × 1

Pileus convex to subexpanded, slightly depressed, gregarious,

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ILLUSTRATIONS OF FUNGI.

3–7 cm. broad; surface smooth, dry, minutely but densely tomentose, orange-brown, fulvous, or reddish-brown; margin thin, usually paler; context white, firm, nutty in flavor, unchanging when wounded; tubes depressed, sinuate, short, watery-white becoming light-yellow to dark-cremeous, mouths angular, small, stuffed when young, edges thin, entire; spores ellipsoid, smooth, hyaline to pale-yellowish, 8–9 × 4.5–5.5 μ; stipe subattenuate above and below, cylindric or somewhat flattened, tomentose, bright-brown, lighter at the apex, brittle, loosely stuffed, with a small cylindric cavity at the center, 4–5 cm. long, 6–10 mm. thick.

This species is common in Europe and the United States in sandy soil at the edges of woods. It is rather small, and varies in color from orange-brown to chestnut; the flesh is white, unchanging, of mild flavor, and edible.

Ceriomyces auriporus (Peck) Murrill

GOLDEN-PORED CERIOMYCES

Plate 80. Figure 2. × 1

Pileus circular, plano-convex, 2–4 cm. broad, 0.5–1 cm. thick; surface reddish-brown or yellowish-brown, rarely grayish-brown, sometimes brown with a reddish-yellow tint or reddish-brown in the center and olivaceous toward the margin, glabrous or minutely tomentose, slightly areolate at times with age, the interstices appearing yellow, usually dry, but somewhat viscid in wet weather; margin even, thin, somewhat obtuse, slightly inflexed on drying, concolorous; context firm, fleshy, 3–5 mm. thick, white, unchangeable, tinged with red under the cuticle, at first mild, then unpleasant to the taste, the cuticle decidedly acid; tubes plane or convex, adnate or nearly free, with a broad shallow depression about the stipe, 3–5 mm. long, bright golden-yellow, unchanging, even after years in the herbarium, mouths concolorous, variable in size, small and circular when young, medium or large and irregularly polygonal when old, edges thin, entire; spores oblong-ellipsoid, curved at one end, lemon-yellow, 8–10 × 4–5 μ; stipe central, short, slender, curved, tapering upward, nearly glabrous, pulverulent under a lens, slimy in wet weather, concolorous or paler, slightly striate above from the decurrent edges of the tubes, solid, white or discolored-yellowish tinged with red within, 2–4 cm. long, 4–8 mm. thick.

Common in thin, dry woods and on shaded roadsides from New England to Alabama, and readily distinguished by its beautiful

golden tubes, which remain for years after drying without changing color.

Rostkovites granulatus (L.) P. Karst.

GRANULATED ROSTKOVITES

Plate 80. Figures 3, 4. × 1

Pileus subhemispheric to nearly plane, gregarious, rarely cespitose or solitary, 4–10 cm. broad, 1–1.5 cm. thick; surface very viscid, with easily separable cuticle, very variable in color, usually pinkish-gray to reddish-brown fading to yellowish, often obscurely spotted, especially at the center; margin sterile, projecting, incurved and somewhat appendiculate when young; context thick, compact, elastic, pale-yellow next to the tubes, white above, unchanging when wounded, taste mild, somewhat mucilaginous; tubes short, less than 5 mm., adnate, subdecurrent, plane in mass, pale-yellow to dirty-yellowish, unchanging when wounded, mouths simple, subcircular, irregular, edges rather thick, flecked with pinkish-brown glandules; spores fusiform, pale-yellowish-brown, 7.5–9.5 × 2.5–3.5 μ; stipe short, thick, subequal or enlarged below, white or pale-yellow, dotted with pinkish-brown droplets which become darker on drying, solid, white within, 2.5–5 cm. long, 1–1.5 cm. thick.

Common in Europe and temperate North America, usually in open woods near coniferous trees. The figures show the more usual reddish-brown form, as well as the albino form, of this excellent edible species.

Rostkovites subaureus (Peck) Murrill

Boletus americanus Peck

GOLDEN ROSTKOVITES. AMERICAN BOLETUS

Plate 80. Figure 5. × 1

Pileus thin, convex to expanded, sometimes umbonate, 5–10 cm. broad; surface very viscid, yellow, often dotted or streaked with bright-red, dingy with age, sometimes spotted from the drying of the gluten; margin slightly tomentose or appendiculate when young; context comparatively thick, fleshy-tough, pale-yellow, pinkish-gray when wounded, taste mild; tubes adnate, scarcely decurrent, plane in mass, bright-yellow to dull-ochraceous flecked with yellowish, exuding drops which blacken with age, mouths rather large, angular, edges obtuse; spores oblong-ellip-

soid, smooth, ochraceous-ferruginous, 8.5–11 × 4–5 μ; stipe slender, tapering upward, yellow, darker toward the base, covered with numerous brownish or reddish-brown glandular dots which blacken with age, solid, yellow within, 4–7 cm. long, 4–8 mm. thick.

This species resembles the preceding and occurs in similar localities, but is confined to eastern North America. The specimens figured did not show the incarnate dots or streaks which often appear on the cap, affording a good distinguishing character. *Boletus flavidus* Fries, of Europe, is closely related.

Ceriomyces subglabripes (Peck) Murrill

SCURFY-STEMMED CERIOMYCES

Plate 80. Figure 6. × 1

Pileus circular, rather thin, subconic or convex to nearly plane, occasionally cespitose, 3–10 cm. broad; surface glabrous, subviscid when moist, rugose at times, usually so when dry, reddish, pale-chestnut, grayish-brown, golden-brown, or rarely darker-brown, margin regular, concolorous; context white or whitish, unchangeable, of mild flavor; tubes plane or convex, adnate or depressed, lemon-yellow, becoming greenish-yellow or darker from the maturing spores, mouths circular to angular, regular, rather small, edges entire; spores oblong-fusiform, greenish-brown when fresh, soon changing to ochraceous-brown, 12–15 × 4–5 μ; stipe central, cylindric, equal or slightly tapering upward, light-yellow without and within, sometimes tinged with red near the middle or lower down, striate but not reticulate, ornamented with small, pallid, scurfy particles, which sometimes partially disappear with age, 5–7 cm. long, 8–15 mm. thick.

On the ground in rather thick deciduous woods from Nova Scotia to New York. It was impossible to reproduce in the illustration the small scurfy particles on the stem which suggested the specific name. The section shows the usual smooth form of the cap, while the other figure represents the exceptional rugose form.

Ceriomyces bicolor (Peck) Murrill

TWO-COLORED CERIOMYCES

Plate 80. Figure 7. × 1

Pileus somewhat irregular, firm, convex, 5–10 cm. broad; surface dry, glabrous or finely tomentose or squamulose, at times

rimose-areolate with age, apple-red or purplish-red, often fading or becoming stained with yellow when old, margin irregular, sometimes upturned; context flavous, changing slowly to blue at times when wounded, then back to flavous, taste mild; tubes short, adnate, nearly plane, flavous when young, becoming ochraceous with age, changing slowly to blue or greenish-blue when wounded, mouths angular, of medium size, 2–3 to a mm.; spores fusiform, smooth, pale-ochraceous-brown, 10–12 × 4–5 μ; stipe nearly equal, firm, solid, yellow or red, sometimes slightly reticulate at the top, changing to greenish-blue when bruised, smooth, nearly glabrous, showing dark dots under a lens, solid, flavous within, changing slowly to blue, 4–10 cm. long, 0.7–1.5 cm. thick.

This very beautiful species may be looked for in open deciduous woods from New England to North Carolina and west to Ohio and Kentucky. The pileus is red or purple, lacking the bloom found in *C. Peckii,* the tubes are yellow, soon changing, and the stipe is yellow or red, without the distinct reticulations found both in *C. Peckii* and *C. speciosus.* The larger plant figured represents the stage in which the bright colors found in young specimens have somewhat faded.

NEW YORK BOTANICAL GARDEN